
**INFLUENCE OF INVENTORY MANAGEMENT PRACTICES ON
PERFORMANCE OF FAST-MOVING CONSUMER GOODS MANUFACTURERS
IN NAIROBI COUNTY, KENYA**

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Abstract

Inventory management practices play a vital role in minimizing costs and maximizing profits, also meeting customer demands by making sure there is enough stock at the right quantity, quality and available at the right time and the right place. To make sure inventory is managed properly, there needs to be adoption of inventory management systems. This study sought to establish the influence of inventory management practices on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya. This study adopted a descriptive research design for the purpose of accessing the study's general intent. The target population was 51 fast moving consumer goods manufacturers in Nairobi County. The study focused on the logistics managers and IT managers of the 51 FMCG manufacturers located in Nairobi as the unit of observation where a census will be conducted on them. Hence a total of 102 respondents was sampled. The study used self-administered questionnaires. Primary data was collected through the administration of questionnaires to respondents. A pilot study was conducted in order to establish the validity and reliability of data collection instruments. The analysis of the data was guided by the research objectives. The study brought up both qualitative and quantitative data. To analyze this data descriptive statistics used by use of questions that are close ended. Pearson R correlation was used to measure strength and the direction of linear relationship between variables. Multiple regression models was fitted to the data in order to test how far the independent variables affect the dependent variable. From the study findings it was found that lead time, top management support, supplier evaluation and e-procurement and performance of fast-moving consumer goods manufacturers have an association. From the finding the study recommends that factors that cause lead time variability need to be addressed with a view of managing the variability as influence the performance of first moving consumer goods manufacturer. There is need for the manufacturers to find ways of reducing lead time variability so that lead time can be managed. There should be improvement of relationships with suppliers. The management of fast-moving consumer goods manufacturing companies needs to adopt proper inventory management practices in order to reduce operation costs such as holding costs, ordering costs among others hence increasing company performance.

Key Words: Lead Time, Supplier Evaluation, Performance, E-Procurement And Inventory Management

Introduction

Inventory management practices play a vital role in minimizing costs and maximizing profits, also meeting customer demands by making sure there is enough stock at the right quantity, quality and available at the right time and the right place. To make sure inventory is managed properly, there needs to be adoption of inventory management systems. Inventory management systems refers to control and set of policies that manage the level of inventory, assess the inventory which will be maintained, raw materials will be used for production and the finished goods will be delivered (Jonsson & Mattsson, 2016). Performance of manufacturing companies is where a business is giving high returns in terms of customer loyalty, reduction of operations costs incurred in inventory and increasing of service delivery (Stanton, 2016).

Inventory management practices have played a role in the business operations for many years in the global arena. Inventory management systems play a vital role in enhancing performance in controlling inventory in manufacturing companies. Companies in developed countries such as China, USA have continually tried to maintain in the competitive market through firm operations. It is high time for companies in developing countries such in Africa and India to implement effective inventory management systems in order enhance competitive advantage (Rajeev, 2016). Handling of inventories such as raw materials, work in progress, and finished goods are stored as buffer stock in order to manage running out of goods (Salawati, Tinggi & Kadri, 2015). Too much of handling of stock especially finished goods occupy a lot of space hence increasing inventory costs such as handling costs and also negatively affects business operations (Dimitrios, 2016).

In Kenya, more organizations such as large business enterprises have implemented inventory management systems in achieving firm performance and competitive advantage (Nyabwanga & Ojera, 2012). Nyabwanga and Ojera (2012) did a study on 71 manufacturing firms and 129 business companies in Kisii County where they found out around 70% of the firms and companies selected had adopted inventory management systems in firm operations, hence increasing competitive advantage. Irungu and Wanjau (2014) asserted that new upcoming supermarkets are continuing adopting inventory management systems which improves customer service, business efficiency and retail firm performance. This recommends that companies, retail business among others continue to adopt inventory management systems around the world.

Kenya fast moving consumer goods manufacturer firms in Nairobi are facing competition from other manufacturing companies where they need to adopt efficient techniques of controlling and assessing the inventory is managed by eliminating waste in the production process, reducing holding costs, ordering costs and many others. Many companies in developing countries like Kenya have adopted inventory management systems in improving their business operations but still they experience challenges in managing of inventory and increasing operation costs. For the companies to survive in the market they need to implement advance stock management systems (Kenya Association of Manufacturers, 2016). Therefore, it is upon this background information the study sought to establish the influence of inventory management practices on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya.

Statement of the Problem

Inventory management is very important in manufacturing companies since it increases firm operations. Manufacturing companies have high levels of finished goods which offer a variety of products and also delivery goods to its customers at the right time (Stanton, 2016). In Kenya, there has been high decrease of sales margin 3.1% from 2013 to 2015 with inefficiency of inventory management systems implemented. This is due to company weakness due to over stocking, under stocking, and failure to meet company targets (Kenya Bureau of Statistics, 2016). The company's stores are overcrowded making the movement of goods to be hard hence affecting the service delivery in the stores (Wood, 2015). Manufacturing companies' managers are familiar how inventory plays in running of organization operations. In most manufacturing companies, direct materials help in the production process hence affecting company performance. Poor inventory management systems leads most of finished goods to stay in the store before being delivered to its final consumption hence affecting organization ineffectiveness (Kenya Association of Manufacturers, 2016).

But for firms operating in industries that feature high volume turnover of raw materials and/or finished products, computerized tracking systems have emerged as a key component of business strategies aimed at increasing productivity and maintaining competitiveness. Poor implementation of inventory management systems affects the company performance in managing inventory hence decreasing sales volume (Davila, 2013). Eshun (2013) reported

that industries in Africa Countries such in Kenya have ignored on how inventory management systems helps in reduction of costs incurred by inventory but they end up using more funds in investing on inventory. The companies are not able to meet customer demands due poor supply of inventory hence affecting firm performance. Industries gain profit from effective and efficient inventory since it amounts between 59%-67% of total costs (Mulumba, 2016). It forms the basis of the study.

Mogere, Oloko and Okibo (2013) investigated on how inventory control systems affects performance of Gianchore Tea Factory, Nyamira County, Kenya where they found out that inventory management systems helps in controlling of inventory, improves lead time management, enhancing customer supplier relationship hence enhancing competitive advantage. Wambua, Okibo, Nyang'Au and Ondieki (2015) did a study where they found out that all departments engage so much in inventory warehousing systems as a way of improving their financial performance of Adventist Book Centers (ABC), Kenya Kitheka and Ondieki (2014) found out that inventory management automation in retail shops increases the effectiveness and efficiency of operations where it reduces operation costs, and increases service delivery. From the above studies there is no study which has focused on how Material Requirement Planning (MRP); Distribution Resource Planning (DRP) System; Vendor Managed Inventory (VMI) System; and Just in Time (JIT) System affects performance of manufacturing companies in Kenya. This study therefore bridged the gap of knowledge by establishing the influence of inventory management practices on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya.

Objective of the Study

The general objective of the study was to establish the influence of inventory management practices on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya. The study was guided by the following specific objectives

- i. To establish the influence of lead time on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya
- ii. To determine the influence of supplier evaluation on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya
- iii. To assess the influence of e-procurement on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya

- iv. To examine the influence of top management support on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya

Theoretical Review

Adaptive Structuration Theory

The study used Adaptive Structuration Theory (AST) by Giddens (2014). Giddens (2014) explains that the theory shows interaction between improved systems, firm structures and group involvement where it focuses on the structures, rules and resources provided by the systems as a reason for enhancing firm operations. Giddens (2014) asserted that Adaptive Structuration Theory is important on how inventory management systems affect performance of manufacturing companies. The theory evaluates the change process on two perspectives: the types of systems used in managing the inventory in the firm and the structures which govern the systems in order to perform effectively and efficiently.

Theory of Inventory and Production

Also the research employed the theory of inventory and production by Weber and Rick (2015). Weber and Rick (2015) explains the theory explains organizations especially companies need to improve and implement inventory management systems which are efficient and effective and are in line with organization operations hence meeting firm objectives and goals. The theory focuses on all manufacturing operations which include: manufacturing, production, warehousing, supply chain, spare part allocation and distribution. According to Weber and Rick (2015), companies need to follow guidelines and rules when implementing a new system for effective work properly of the system such as inventory management system. The guideline include: the need for adopting the system, evaluate and assess the environment, assess the amount of inventory the company usually have, develop a mathematical model which describes the behavior of inventory; examine the challenges will experience in implementing of the system, develop and adopt the inventory rules with firms strategic management, and design the information system that helps in providing inventory levels information design. Frank, Rachel and Izak (2013) also asserted that the adoption of the system considered the costs incurred in the inventory management.

Lean Theory

In addition the study employed Lean theory by Eroglu and Hofer (2011). The model is an expansion of Just in Time. The approach helps the management of business in making inventory management decisions, enhance ordering of goods, improve lead time management and helps in purchasing and supply decisions. Inman and Green (2016) the theory helps in reduction of waste as the production is ongoing and also it eliminates stock of raw materials. Eroglu and Hofer (2011) reported that lean management enhances efficiency and effectiveness of business operations. The lean management helps to control the ordering and receiving of goods where it makes sure there is no stock out in order to improve re-ordering process. It helps in the inventory management flexibility.

Strategic Choice Theory (SCT)

Strategic choice theory shows the relationship between top management choices and organization performance as well as interaction of the internal and external organization. The theory stresses the importance of management decisions on organizational performance (Child, 2009). Campling and Michelson (2015) established a strategic choice model that depicts the interdependence among the environment and organizations, actions and overall firm performance. The model aim at achieving high performance standards in order to increase efficiency where there are a limited resource, the theory failed to give much importance contextual factors like environment, technology and scale of operation into consideration and only considered how organizational structure aid in performance of organization.

Any organization with managers given power and responsibilities to direct and make decision regarding factors like inventory investment and the amount of inventory to carry have significant effects on organizational outcomes as well as performance SCT argues that the right management choice will depend on environmental factors like suppliers, purchasing and inventory management decision made by the management (Child, 2009). Ketchen and Hult (2010) suggest that SCT views managers as personnel who are downstream decision makers directing decision and changing process in organization. Change or variations can be caused by contextual factors including environmental conditions and technology. Using new technology in inventory management such as RFID, bar codes and ERP systems are some technological changes that require decision making at corporate level with support from both business and functional level. Strategic choice theory is relevant to this study through

understanding inventory processes as it shows the relationship between top management choices and organization performance as well as interaction of the internal and external organization.

Conceptual Framework

Conceptual frameworks are used to explain how the independent variables affect the dependent variable. The independent variables in this study entail lead time, top management support, supplier evaluation and e procurement while the dependent variable is the performance of fast-moving consumer goods manufacturers. The relationship between independent variables and the dependent variable is of profound importance as it clearly stipulates the influence of inventory management practices on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya.

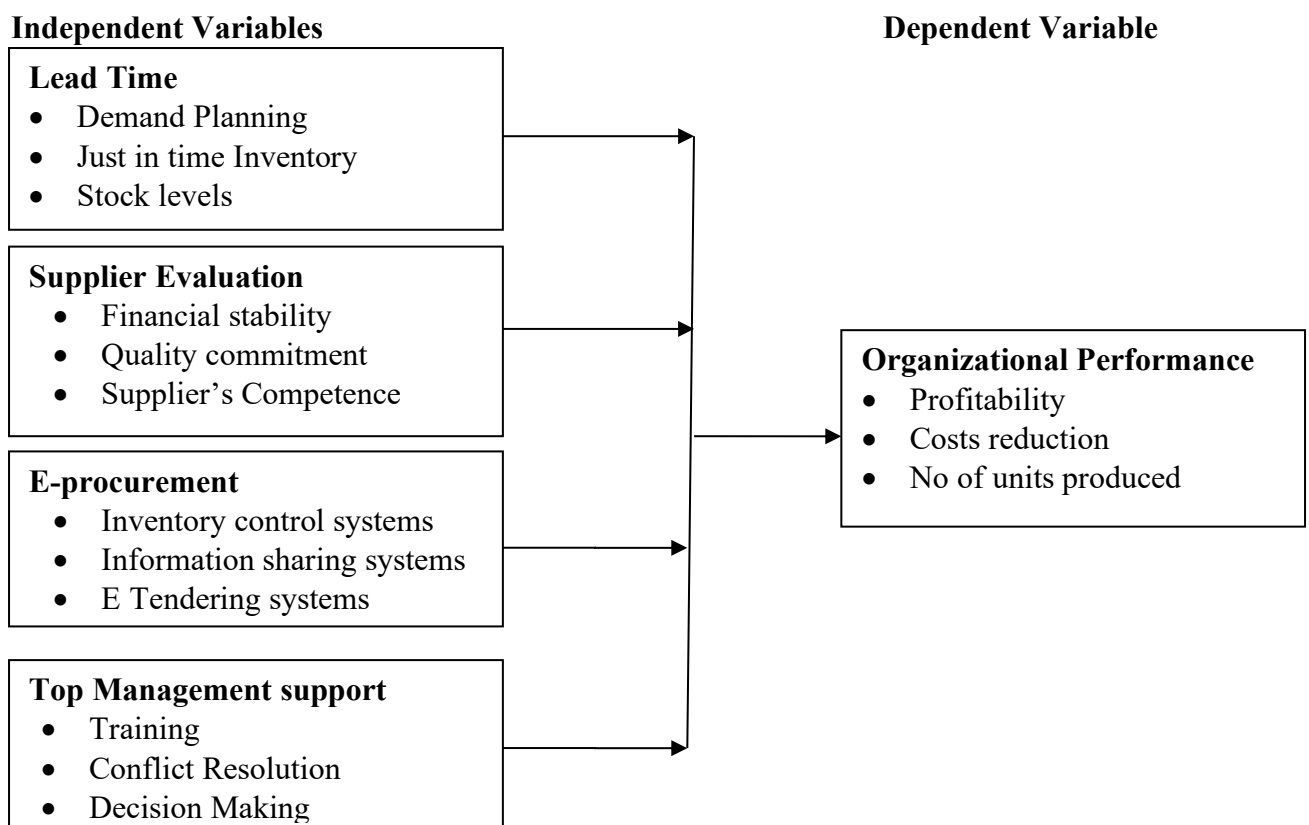


Figure 1: Conceptual Framework

Empirical Review

Sanghal (2015) studied effects of excess inventory on long term stock price performance in U.S.A manufacturing firms. The objective of the study was to assess how inventory affects

stock price performance. A descriptive survey design was used. The target population included 109 manufacturing companies where 2189 employees were targeted. Simple random sampling technique was used to select 61 companies and 457 employees were sampled. Both primary and secondary data were used as data collection instruments. Quantitative and qualitative analysis were used in analyzing, presentation and interpretation of data. Both descriptive and inferential statistics were used in analyzing and presentation of data. The study found out that long run price enhances too much of inventory to stay in the store hence increasing holding costs. This affects the performance of manufacturing companies. The study concludes high increase of price affects holding of inventory. The study recommended that the manufacturing companies needs to implement inventory management systems especially the Material Requirement Planning (MRP) system in order to calculate the quantities required to be manufactured hence reducing holding costs of finished goods (Sanghal, 2015).

Koumanakos (2016) focused on how inventory management practices affects performance manufacturing companies in Greece. A descriptive survey design was used. The target population included 115 manufacturing companies where 5761 employees were targeted. Simple random sampling technique was used to select 91 companies and employees were sampled. Both primary and secondary data were used as data collection instruments. Quantitative and qualitative analysis were used in analyzing, presentation and interpretation of data. Both descriptive and inferential statistics were used in analyzing and presentation of data. Koumanakos indicated that Distribution Resource Planning and Just In Time Systems enhance service delivery where the goods are delivered to its customers at the right time and at the right place hence increasing customer satisfaction and firm performance. The study concluded that inventory management systems affects firm performance. The study recommends that food, textile and chemicals factory management needs to improve the inventory control systems in order to increase its firm performance through delivery its goods to its customers at the right time and right place.

Research Gap

The Literature reviewed clearly indicates that the concept of inventory management in the manufacturing firms in Kenya majorly concentrated on inventory management techniques while there are so many variables that affect inventory management. The current study hence

attempts to elaborate further on these variables. The study conducted by Ngumi (2015) on inventory management practices and productivity of large manufacturing firms in Nairobi, Kenya mentioned that, inventory management should be regarded as a top management function although the study did not give insights on the role of the top management in inventory management and instead the researcher expounded on the following variables which affect inventory management; Activity Based Costing, Just in Time, EOQ,DRP, VMI, Radio Frequency Identification and bar coding . The study also described IT as an emerging issue in the management of inventory in large manufacturing firms which should be researched further by the future researchers. Therefore, the current study sought to fill in the gap by finding out the effects of inventory management practices using these variables; lead time, top management support, supplier evaluation and e procurement and how they influence performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya

Research Methodology

This study adopted a descriptive research design for the purpose of accessing the study's general intent. The target population was 51 fast moving consumer goods manufacturers in Nairobi County. The study focused on the logistics managers and procurement managers of the 51 FMCG manufacturers located in Nairobi as the unit of observation where a census was conducted on them. Hence a total of 102 respondents were targeted. The unit of observation was logistics and procurement managers who will make up 102 respondents. The study made use of primary data. The study used self-administered questionnaires. The questionnaire was self-administered. Upon obtaining a letter from the University, the data collection process began. To enhance the response rate, the respondents was given enough time to respond to the questionnaires since most have busy schedules. The questionnaires where be pre-tested on a pilot set of 5 respondents for comprehension, logic and relevance. The rule of the thumb suggests that 5% to 10% of the target sample should constitute the pilot test. The subjects participating in the pilot study was not be included in the final study to avoid fatigue. The reliability of the study measures was assessed by computing Cronbach's Alpha coefficient for all items in the questionnaire and the overall assessment was given. Prior to data collection, the content validity of the instrument will be established by grounding it in existing literature.

Mixed methods data analysis techniques were employed in this study incorporating both descriptive and inferential data analysis. The analysis of the data was guided by the research

objectives. The data collected from the field was analyzed using statistical package for social sciences (SPSS) 23 program. The questionnaires were referenced and the items in them coded for easier data entry. The study brought up both qualitative and quantitative data. To analyze this data descriptive statistics was used by use of questions that are close ended. The use of descriptive analysis is the foundation of experimental and correctional studies. Content analysis will be used to analyses qualitative data. Pearson R correlation was used to measure strength and the direction of linear relationship between variables. Multiple regression models were fitted to the data in order to test how far the independent variables affect the dependent variable.

Results And Discussion

Descriptive and inferential statistics have been used to discuss the findings of the study.

Correlation Analysis

The relationship between inventory management practices and performance of fast-moving consumer goods manufacturers was determined by computing Pearson Moment Correlation analysis. The results were as shown in Table 4.8. The results revealed that there was a strong positive correlation between lead time and performance of fast-moving consumer goods manufacturers ($r = 0.847$, $p = 0.000 < 0.01$); supplier evaluation and performance of fast-moving consumer goods manufacturers were strongly and positively correlated ($r = 0.806$, $P = 0.001$); electronic procurement were found to have a strong positive correlation with performance of fast-moving consumer goods manufacturers ($r = 0.792$, $P = 0.001$); top management support and performance of fast-moving consumer goods manufacturers were found to be strongly and positively correlated ($r = 0.824$, $P = 0.001$). This implies that lead time, top management support, supplier evaluation and e-procurement and performance of fast-moving consumer goods manufacturers have an association. The findings concur with Onyeaghala and Hyacinth (2016) who established that the activities of selecting applied by private and public organizations were significantly different levels of productivity. It also agrees with the findings of Mapelu and Jumah (2013) who studied how turnover of employees in medium hotels in Kisumu is affected human resource management strategies and establishing the level to which training and development led to turnover of employees.

Table 1: Correlations

		Performance	Lead Time	Supplier Evaluation	E-Procurement	Top Management Support
Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	40				
Lead Time	Pearson Correlation	.847**	1			
	Sig. (2-tailed)	.000				
	N	40	40			
Supplier Evaluation	Pearson Correlation	.806	.419	1		
	Sig. (2-tailed)	.001	.068			
	N	40	40	40		
E-Procurement	Pearson Correlation	.792**	.579	.559	1	
	Sig. (2-tailed)	.001	.061	.068		
	N	40	40	40	40	
Top Management Support	Pearson Correlation	.824**	.337	.477	.326	1
	Sig. (2-tailed)	.001	.082	.076	.064	
	N	40	40	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Statistical Modelling

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.859 ^a	0.738	0.728	0.009

Change in dependent variable as a result of variation in independent variables was determined by computing model summary. The study analyzed the variations of performance of fast-moving consumer goods manufacturers due to the changes of lead time, top management support, supplier evaluation and e-procurement. The results in table 2, show that adjusted R squared was 0.728 implying that there was 72.8% variation of performance of manufacturer of fast moving consumer goods , due to the changes in lead time, top management support, supplier evaluation and e-procurement. The remaining 27.2% imply

that there are other factors that lead to performance of fast-moving consumer goods manufacturers which were not discussed in the study.

Table 3: Analysis of variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17.768	4	4.442	15.752	.001
	Residual	9.858	35	0.282		
	Total	27.626	39			

ANOVA was computed to determine whether the model was significant. The p-value obtained (0.000) was found to be less than the selected level of significance (0.05) an indication that the model was fit for predicting employee retention. From table 3, the F calculated was greater than F critical (15.752 >2.546). This shows that lead time, top management support, supplier evaluation and e-procurement significantly affect performance of fast-moving consumer goods manufacturers.

Table 4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.235	0.181		6.823	0.000
	Lead Time	0.565	0.108	0.522	5.231	0.000
	Supplier Evaluation	0.526	0.115	0.497	4.574	0.004
	E-Procurement	0.498	0.098	0.487	5.082	0.001
	Top Management Support	0.501	0.099	0.492	5.061	0.001

The regression equation was

$$Y = 1.235 + 0.565 X_1 + 0.526 X_2 + 0.498 X_3 + 0.501 X_4$$

The equation above reveals that holding lead time, top management support, supplier evaluation and e-procurement to constant zero, the variables will significantly influence performance of fast-moving consumer goods manufacturers as shown by constant = 1.235 as shown in Table 4.

Lead time is statistically significant to performance of fast-moving consumer goods manufacturers ($\beta = 0.565$, $P = 0.000$). This shows that lead time had significant positive relationship with performance of fast-moving consumer goods manufacturers. This implies that a unit increase in lead time will result to increase in performance of fast-moving

consumer goods manufacturers. Supplier evaluation is statistically significant to performance of manufacturer of fast-moving consumer goods ($\beta = 0.526$, $P = 0.004$). This shows that supplier evaluation had significant positive relationship with performance of fast-moving consumer goods manufacturers. This implies that a unit increase in supplier evaluation will result to increase in performance of fast-moving consumer goods manufacturers.

Electronic procurement is statistically significant to performance of fast-moving consumer goods manufacturers ($\beta = 0.498$, $P = 0.001$). This shows that electronic procurement had a significant positive relationship with performance of fast-moving consumer goods manufacturers. This implies that a unit increase in electronic procurement will result to increase in performance of fast-moving consumer goods manufacturers. Top management support is statistically significant to performance of fast-moving consumer goods manufacturers as shown by ($\beta = 0.501$, $P = 0.001$). This shows that top management support had a significant positive relationship with performance of fast-moving consumer goods manufacturers. This implies that a unit increase in top management support will result to increase in performance of fast-moving consumer goods manufacturers. Thus, the optimal model for the study is; $\text{Performance} = 1.235 + 0.565 \text{ Lead Time} + 0.526 \text{ Supplier Evaluation} + 0.498 \text{ E-Procurement} + 0.501 \text{ Top Management Support}$

Conclusions

From the study findings it was found that lead time, top management support, supplier evaluation and e-procurement and performance of fast-moving consumer goods manufacturers have an association. The findings concur with Onyeaghala and Hyacinth (2016) who established that the activities of selecting applied by private and public organizations were significantly different levels of productivity. The study found that there was 72.8% variation of performance of fast-moving consumer goods manufacturers, due to the changes in lead time, top management support, supplier evaluation and e-procurement.

The study revealed that lead time had significant positive relationship with performance of fast-moving consumer goods manufacturers. This implies that a unit increase in lead time will result to increase in performance of fast-moving consumer goods manufacturers. The study found that supplier evaluation is statistically significant to performance of fast-moving

consumer goods manufacturers. This is an indication that supplier evaluation had significant positive relationship with performance of manufacturer of fast-moving consumer goods manufacturers. This implies that a unit increase in supplier evaluation will result to increase in performance of fast-moving consumer goods manufacturers.

It was found that electronic procurement is statistically significant to performance of manufacturer of fast-moving consumer goods. This is an indication that electronic procurement strategy had a significant positive relationship with performance of fast-moving consumer goods manufacturers. The study also found that a unit increase in electronic procurement will result to increase in performance of fast-moving consumer goods manufacturers. Top management support is statistically significant to performance of manufacturer of fast-moving consumer goods. This clearly shows that that top management support had a significant positive relationship with performance of fast-moving consumer goods manufacturers. This leads to the conclusion that a unit increase in top management support will result to increase in performance of fast-moving consumer goods manufacturers. It also agrees with the findings of Mapelu and Jumah (2013) who studied how turnover of employees in medium hotels in Kisumu is affected human resource management strategies and establishing the level to which training and development led to turnover of employees.

Recommendations

From the finding the study recommends that factors that cause lead time variability need to be addressed with a view of managing the variability as influence the performance of first moving consumer goods manufacturer. There is need for the manufacturers to find ways of reducing lead time variability so that lead time can be managed. Dealing with international suppliers, an importer must be aware of all sources of lead time variation including the production lead time, shipping lead time, customs brokerage turnaround time as well as receipt and inspection velocity.

There should be improvement of relationships with suppliers. The most important purchasing activity is to select and keep close relationships with several reliable and high-quality suppliers in order to reduce product cost, maintain good product quality and customer services. Retail outlets should improve their relationship with their suppliers by paying them on time, ensuring early placement of orders, free flow of information, and also being honest with them. This is because, it was discovered from the study that some of the suppliers were

reluctant to supply materials when orders are made in situations where the company is indebted to them. The fast-moving consumer goods manufacturers need to train their evaluation committees or procurement managers on ways of best evaluating suppliers.

The management of fast-moving consumer goods manufacturing companies needs to adopt proper inventory management practices in order to reduce operation costs such as holding costs, ordering costs among others hence increasing company performance. Also the supply chain department of company needs to make sure the inventory management systems work properly in order to improve the flow of information to other departments. In addition, the management needs to emphasize on inventory management practices in all company operations in order to increase effectiveness and efficiency of firm operations. The management of these companies need to train the employees on how to use the inventory management systems in order for them to understand how it operations, hence increasing firm performance. Also need the management needs to improve the effectiveness and efficiency of inventory management systems in order to increase firm performance and enhance competitive advantage.

Areas For Further Research

This study focused on establishing the influence of inventory management practices on performance of fast-moving consumer goods manufacturers in Nairobi County, Kenya. There is need for further research on how inventory management systems affects performance of manufacturing companies. The research was done in fast moving consumer goods manufacturing companies, there is need to replicate the study using other sectors and assess effects of inventory management practices on firm performance.

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